# News in Brief

**Web Site Planned**
A web site is currently in the design phase, and will include a literature archive, a message board, industry links, meeting information, and other organization news.

**Articles Needed!**
Send in your articles for the next ARROW newsletter! Send your ideas, articles, photos and other newsworthy items to:
Beth Frampton
4600 Lake Road
Minneapolis, MN 55422
bframpton@uni-systems.com
Phone: 763-536-1407
Fax: 763-536-9782

**Thanks to the Crew at Safeco Field**
Hats off to the Ben Barton, Amy Swisher, Vance Akres, Rob Wolford and the rest of the crew at Safeco Field for a fine job hosting the first ARROW conference.

**Retractable Roof Industry Widely Represented**
ARROW conference participants included:
*America West Arena*
*Bank One Ball Park*
*Ederer Crane*
*Global Spectrum*
*Hardesty & Hanover*
*Houston Astros/Minute Maid Park*
*LZA Technology*
*Milwaukee Brewers/Miller Park*
*NW Getz + Associates*
*Sanitors, Inc.*
*Seattle Mariners/Safeco Field*
*SKF*
*Thornton Tomasetti*
*The Toub Group*
*Turner Construction*
*Uni-Systems, LLC*
*Walter P. Moore*
*Wrightson, Johnson, Haddon & Williams, Inc.*

**Questions, Concerns or Other Feedback?**
Contacts for ARROW:

Mike Duckett
ARROW Chair
Miller Park
One Brewer Way
Milwaukee, WI 53214
mduckett@sewpbpd.com
414-902-4040

Bobby Forrest
ARROW Vice Chair
Houston Astros Baseball Club
Minute Maid Park
PO Box 288
Houston, TX 77001
Forrest@astros.com
713-259-8503

**Database of ARROW Members**
Please take a few minutes to complete the following information and fax or e-mail it to Beth Frampton to update the ARROW database.
Fax: 763-536-9782
E-Mail: bframpton@uni-systems.com

Name: _____

Organization: _____

Mailing Address: _____

_____

E-Mail: _____

Phone: _____

Fax: _____

Please check the items you would like to receive from ARROW:

- ☐ Monthly Newsletter (US Mail)
- ☐ Monthly Newsletter (E-Mail)
- ☐ Other ARROW News
- ☐ Please Check here if you like to be on the ARROW server list and receive e-mails from other members.
- ☐ Please check here if you do not wish to receive any mailings from ARROW.



ARROW
# Roofing News
The Association of Retractable Roof Operators Worldwide
Volume 1, Issue 1, August 13, 2004

**ARROW Holds Its First Conference in Seattle**
The Association of Retractable Roof Operators Worldwide (ARROW) held its first official meeting at Safeco Field on July 29 and 30. Twenty-five members of the retractable roof industry, including operators, designers, builders and suppliers met to discuss issues facing the retractable roof industry, and future of the association.

Operators discussed operation and maintenance challenges at their facilities, especially considering that the industry is new and is just developing an established pool of resources and information.

Chuck Armstrong, President, Seattle Mariners Baseball Team, provided the keynote speech, discussing issues related to Safeco Field from the perspective of the team president, players and fans. Since a large percent of Seattle Mariners fans travel several hours to attend games at Safeco Field, canceling games due to weather is not an option. It is vital that the retractable roof operates reliably every time.

Presentations were given by Bart Riberich and Beth Frampton of Uni-Systems, LLC, regarding preventative maintenance, and by Ben Barton of Safeco Field regarding roof operator certification programs.

Safeco Field operations staff provided tours of the stadium, and conference attendees were able to view roof operation from various vantage points.

The meeting was planned and hosted by Ben Barton and the Safeco Field Operations staff.

*The first ARROW conference was held at Safeco Field.*

*Inside This Issue:*

*2004 ARROW Conference* 1
*Upcoming Meeting Info* 2
*ARROW Mission Statement* 2
*ARROW Chair and Vice-Chair* 2
*Conference Prsentation Re-Caps* 3
*News In Brief* 4
*ARROW Conference Attendees* 4
*Join the Database* 4

**Miller Park to Host Summer Meeting in 2005**

Each year, ARROW will schedule two meetings. The summer meeting will be hosted by a retractable roof ballpark, and will be geared specifically to retractable roof operators. Presentations will be scheduled related

*Miller Park, Milwaukee Wisconsin*

to topics chosen by operators. Mike Duckett of Miller Park will host the 2005 summer ARROW meeting in Milwaukee, Wisconsin. Bobby Forest of Minute Maid Park will host the 2006 summer meeting in Houston, Texas.

*Minute Maid Park, Houston Texas*

The winter meeting will be held in conjunction with the IAAM conference. The venue will target the entire retractable roof stadium industry, and will focus on a broad range of issues related to retractable roof operation.

**ARROW Chooses a Chair and Vice Chair**

The group of operators decided to keep ARROW informal, and to focus on optimizing retractable roof design, operation and maintenance rather than on by-laws and association structure. With that in mind, the host of the upcoming summer meeting will act as the Chair, and the host of the following summer meeting will act as the Vice-Chair of ARROW. Mike Duckett of Miller Park is the current Chair, and Bobby Forrest of Minute Maid Park is the current Vice-Chair, and will be Chair beginning one year from the next conference.

**ARROW Discusses Mission Statement**

Retractable roof venues are a shared community asset, and represent a significant investment by both public and private parties. Since the design life of most stadiums is at least 50 years, no individual or individual group is likely to have continuous operation and maintenance responsibilities for the entire life of the facility. Stewardship of retractable roof facilities is mandatory to protect these valuable community assets as they change through various owners, operators and maintenance staff. With this in mind, the group developed the following mission:

*Proper stewardship requires careful planning and design...*

***"ARROW provides the definitive worldwide resource for the proper design, operation, maintenance and stewardship of retractable roof venues."***

Proper stewardship requires careful planning and design, proper staffing and staff training, a proactive long-term view to preventive maintenance and record keeping, and adequate financial underwriting. All members of the retractable roof community have knowledge, experience and expertise that is vital to proper stewardship, and ARROW is a venue for pooling these resources to ensure the long-term success of this new industry.

**Development and Preventative Maintenance Presentation**

Bart Riberich, PE, Vice President of Engineering, and Beth Frampton, Technical Writer, both of Uni-Systems, LLC presented "Long Term Maintenance Planning and Current Operator Trends" as part of the ARROW conference.

**Design phase at Minute Maid Park**

Topics included:

- *Good Maintenance Starts During Design*
- *Maintenance Considerations During Construction and Start-Up*
- *Operation and Maintenance Manuals and Training*
- *Designer/Manufacturer on-Going Technical Support.*

For a copy of the presentation, please contact Beth Frampton by phone at 763-536-1407, or e-mail bframpton@uni-systems.com.

**Roof Operator Certification Program**

Ben Barton, Director of Engineers at Safeco Field presented the multi-level Roof Operator Certification Program that he developed specifically for Safeco Field. The detailed program addresses issues that are applicable to other retractable roof venues, and provides an excellent starting point for any operation team.

*Safeco Field Under Construction*

For a copy of the presentation, please contact Ben Barton by phone at 206-321-4587, or e-mail bbarton@seattlemariners.com

*Conference participants viewed a roof move from various vantage points...*

**A Tour of Safeco Field**

Ben Barton, Director of Engineers at Safeco Field, along with Safeco Field maintenance staff provided tours of Safeco Field's retractable roof system. Conference participants got a first hand look at the motor control room, the operator control station, the rail deck and carriers, and the top of a roof panel. Roof operation, maintenance, security, baseline testing and monitoring were discussed. Additionally, participants were able to view the roof move from vantage points such as the operator control room, the rail deck area, and the top of a roof panel.